

FUNDING ARRANGEMENT
Between the Department of Energy of the United States of America
and the Ukrainian Radiation Protection Institute Pertaining to the
Ukrainian–American Pilot Eye-Cataract and Other Dosimetry Studies

Purpose:

The purpose of this Funding Arrangement is to establish the framework for the receipt, distribution, and accountability of funds to be provided by the U.S. Department of Energy (hereinafter referred to as the DOE) to the Ukrainian Radiation Protection Institute (hereinafter referred to as the URPI) in support of pilot dosimetry development and application activities with emphasis on application to the current Ukrainian–American study on radiogenic eye cataracts. In addition, a major goal is to summarize and publish information on the radiation-dose situation in Ukraine, so that the information may be used by the international community to evaluate the feasibility of additional studies.

The scope of this work is outside and beyond that of other activities (epidemiologic studies of thyroid disease and leukemia and of dosimetry research in support of these activities) currently being discussed between the United States of America and Ukraine within the context of the U.S.–Ukraine Joint Coordinating Committee on Civilian Nuclear Reactor Safety (JCCCNRS). The work/milestones to be done under this Arrangement are detailed in Annex I. The budget for this activity and the format for financial reporting requirements are described in Annex II. The project will be referred to as the Ukrainian–American Eye-Cataract and Other Dosimetry Studies (hereinafter referred to as the UkrAm Dosimetry Study).

Parties:

The responsible parties will be the Director, Office of International Health Programs of the U.S. Department of Energy, and the Director, Ukrainian Radiation Protection Institute.

Scope:

The scope of the Arrangement pertains only to those funds transferred directly by the DOE to the URPI for the purpose of support and services for activities directly related to the UkrAm Dosimetry Study.

Areas of Agreement:

1. The DOE will provide to the URPI U.S. monies to be allocated, distributed, and used solely for the development and implementation of the UkrAm Dosimetry Study.

2. With the signing of this document and concurrence on the milestones in Annex I for the eight months of this study, transfer of U.S. monies will be made to support the first half of the UkrAm Dosimetry Study. Monies for the second half of the study will be transferred upon receipt and approval of a brief status report and a financial report for the first four months of the study.
3. U.S. monies will be transferred directly to the Ukraine National Bureau of International Projects to be used for the account of the URPI. The U.S. monies will not be subject to taxes, duties, or other handling or administrative charges beyond modest bank-transfer fees and the 4% fee charged by the National Bureau of International Projects.
4. U.S. monies will be allocated in the following manner:
 - o No more than ten (10) percent of the total DOE monies shall be used for administrative or indirect costs directly related to the UkrAm Dosimetry Study;
 - o Up to twenty-five (25) percent of the total DOE monies may be spent for travel directly related to the UkrAm Dosimetry Study; and
 - o The remainder of the monies shall be allocated for *supplementary* personnel support. Personnel support is understood to include primarily direct salary supplementation allocated to individual project personnel based on the percent effort each spends on the UkrAm Dosimetry Study and their professional duties in the study. Funds will be allocated in two categories: support personnel will be paid a minimum of \$50 per month with a maximum five-fold increase depending upon the level of responsibility; professional staff will be paid a minimum of \$100 per month with a maximum five-fold increase depending on the position of responsibility.
5. Funding will be initiated by the submission of an invoice from the URPI that will follow the format indicated in Annex II and will indicate the projected number of man-months to be worked according to the milestones indicated in Annex I. Continuation of funding will require a similar invoice to be submitted at the end of the first four months of the project.
6. At the end of the first four months and again at the end of the UkrAm Dosimetry Study the URPI will provide to the DOE the following information:
 - o An appropriate expenditure report for the previous period using the format specified in Annex II; and
 - o A status (four months) or summary report (eight months) that includes the milestones accomplished in the previous period as specified in Annex I.

7. Reports are to be sent to the DOE Office of International Health Programs.

Oversight:

At intervals not to exceed every four (4) months, U.S. representatives may visit the URPI to review the administration of the UkrAm Eye-Dose Study and the accounting for the expenditure of U.S. funds. The URPI will provide office space and necessary information and assistance to such U.S. representative while in Kiev.

General Provisions:

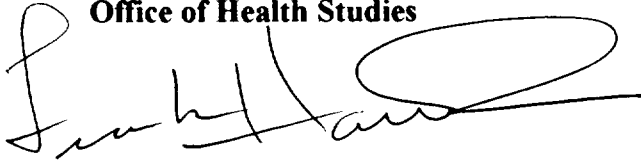
Cooperation under this Agreement will be in accordance with the laws and regulations under which each party operates. Monies shall be provided subject to the availability of appropriated funds and to the mutual consent of the two parties.

Entry into Force and Terminations:

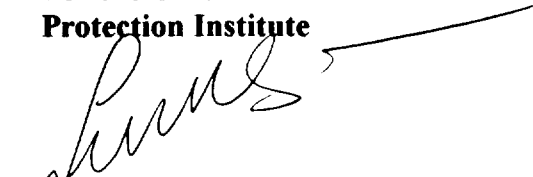
This Funding Agreement shall enter into force upon signing by both parties and remain in force for eight (8) months. This Agreement may be amended at any time by mutual consent of the parties.

This Agreement may be terminated by either party upon sixty (60) days written notice to the other party.

**For the U.S. Department of Energy
Office of Health Studies**


Date: 3/26/96

**For the Ukrainian Radiation
Protection Institute**


Date: 22/03/96

ANNEX I
to the
FUNDING ARRANGEMENT
Between the Department of Energy of the United States of America
and the Ukrainian Radiation Protection Institute Pertaining to the
Ukrainian–American Eye-Cataract and Other Dosimetry Studies

List of Milestones/Tasks to be Accomplished Under this Agreement

1. Initiate and continue work on an advanced system of dosimetry to provide doses specifically to the eye-lens tissue of those individuals enrolled in the Ukrainian–American Eye-Lens-Cataract Epidemiologic Study. This project pertains to the study of eye-lens-cataract formation in liquidators exposed during the clean-up of the Chernobyl accident. The dose to be provided for the eye-lens tissue should include that from beta rays, as well as that due to gamma rays. A progress report should be provided at the end of the eight-month project.
2. Initiate and continue work on developing a biological dosimetry system for eye-lens tissue. A suggested possibility is the application of the fluorescent in situ hybridization assay to cultured tissue derived from the eye lens. This project might be completed in two stages. The first stage could be a report within three months indicating the feasibility of this assay with specification of any additional equipment that might be needed to culture such cells. The second stage would run through the end of the eight-month period with a final report on the status of such development.
3. Initiate work in order to continue the development of a general model of ^{137}Cs -dose formation in Ukraine territories. This model should take account of the countermeasures that were actually applied and should be based upon actual measurements of ^{137}Cs -body burdens and of ^{137}Cs content in milk. Initial work on this model has already been published in *Health Physics*. The continuation of the work should take particular consideration of data indicating that the countermeasure-effectiveness has eroded. Another area of application should be the development of a stochastic model to describe these processes, with values of parameter distributions being described insofar as possible by real data from the Ukrainian situation.
A progress report on these activities should be delivered at the end of the eight-month period.
4. Prepare an article for the peer-reviewed scientific literature on the magnitude and distribution of collective dose and resulting risk of stochastic diseases to the general public in Ukraine as a result of the Chernobyl accident.
This article should be completed within three months of the initiation of this project.
5. Prepare an article for the peer-reviewed scientific literature on the magnitude and distribution of the collective dose and the resulting risk of stochastic diseases that might have resulted to the general public in Ukraine as a result of the Chernobyl accident, if the wind conditions during the accident had not been so favorable.
This article should be completed within six months of the initiation of this project.

Annex II.
Budget and Quarterly Report Format for the UkrAm Dosimetry Study

Projected budget for the UkrAm Dosimetry Study:			
	Man-months	US\$	US\$
Total funds			\$50,000
Indirect costs			
Ukrainian Bureau of International Studies		\$2,000	
Ukrainian Radiation Protection Insititue		\$3,000	
Total indirect costs			\$5,000
Travel costs			
Two trips to the United States for consultation on scientific issues		\$6,000	
Two trips to Europe for consultation on scientific issues		\$2,000	
Total travel costs			\$8,000
Personnel costs estimated at \$200 per man month			
Milestone 1	85	\$17,000	
Milestone 2	25	\$5,000	
Milestone 3	40	\$8,000	
Milestone 4	5	\$1,000	
Milestone 5	30	\$6,000	
Total personnel costs	185		\$37,000
Sum of estimated costs			\$50,000

Annex II.
Budget and Quarterly Report Format for the UkrAm Dosimetry Study

Invoice for the initial four-month period.			
		Reporting Period:	
		Initial invoice	
Institution:	Ukrainian Radiation Protection Institute		
Address:	53 Melnikova Street, 252050 Kiev, Ukraine		
Name of Contact Person:		Telephone #:	Fax #:
Prof. Ilya Likhtarev		213-71-92	213-71-92
Reporting Items			
A. Project Personnel Support	Person-Months*	Task	Amount in U.S. \$\$
		1	\$\$
		2	\$\$
		3	\$\$
		4	\$\$
		5	\$\$
*Number of months worked by each person		Subtotal>	\$\$
B. Administrative/Indirect Costs			Amount in U.S. \$\$
*			\$\$
*			\$\$
*			\$\$
*			\$\$
*			\$\$
Subtotal>			\$\$
C. Travel Costs			Amount in U.S. \$\$
			\$\$
			\$\$
Subtotal>			\$\$
Total Costs			\$\$
Please attach progress reports on milestones accomplished during funding period			

Initial Invoice

Invoice for the initial four-month period.			
		Reporting Period:	
		Initial invoice	
Institution:	Ukrainian Radiation Protection Institute		
Address:	53 Melnikova Street, 252050 Kiev, Ukraine		
Name of Contact Person:	Telephone #:	Fax #:	
Prof. Ilya Likhtarev	213-71-92	213-71-92	
Reporting Items			
A. Project Personnel Support	Person-Months*	Task	Amount in U.S. \$\$
	35.5	1	\$7,100
	12	2	\$2,400
	20	3	\$4,000
	5	4	\$1,000
	20	5	\$4,000
*Number of months worked by each person		Subtotal>	\$18,500
B. Administrative/Indirect Costs			Amount in U.S. \$\$
Fee to the Ukrainian Bureau of International Projects			\$1,000
Administration charges			\$1,500
*			\$1,000
*			\$2,500
Subtotal>			\$2,500
C. Travel Costs			Amount in U.S. \$\$
One trip to the United States			\$3,000
One trip to Europe			\$1,000
Subtotal>			\$4,000
Total Costs			\$25,000